

FORM PTO-1390

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A FILING UNDER 35 U.S.C. 371**

043890-0942

U.S. APPLIC. NO. (if known, see 37 CFR 1.5)  
Not Yet Assigned **10/593696**

INTERNATIONAL APPLICATION NO  
PCT/JP2005/007062

INTERNATIONAL FILING DATE  
April 12, 2005

PRIORITY DATE CLAIMED  
April 14, 2004

## TITLE OF INVENTION

HEAT EXCHANGER AND ITS MANUFACTURING METHOD

## APPLICANTS FOR DO/EO/US

Mitsunori TANIGUCHI, Osao KIDO, Toshiaki MAMEMOTO

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☒ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is attached herewith (required only if not transmitted by the International Bureau).
  - b. ☒ has been communicated by the International Bureau.
  - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US)
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are attached hereto (required only if not transmitted by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendment has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ An English translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 CFR 1.76.
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821-1.825.
18. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English translation of the International Application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information.
  - 1) Front page of International Published Application
  - 2) International Search Report
  - 3) Form PCT/IB/304

|   |              |   |            |   |              |
|---|--------------|---|------------|---|--------------|
| U.S. APPLIC. NO. (if known, see 37 CFR 1.50)<br>Not Yet Assigned  |              | INTERNATIONAL APPLICATION NO.<br>PCT/JP2005/007062                            |            | ATTORNEY'S DOCKET NUMBER<br>043890-0942 |              |
|   |              |   |            | CALCULATIONS                            | PTO USE ONLY |
| 21. <input checked="" type="checkbox"/> The following fees are submitted:   |              |   |            |   |              |
| <input checked="" type="checkbox"/> Basic National Stage Fee \$300  |              |   |            | \$300.00                                |              |
| 22. <input checked="" type="checkbox"/> Examination Fee<br>If the written opinion prepared by ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) \$0<br>All other situations \$200   |              |   |            | \$200.00                                |              |
| 23. <input checked="" type="checkbox"/> Search Fee (37CFR 1.492(b))<br>If the written opinion of the ISA/US or the International preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) \$0<br>Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority \$100<br>International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB \$400<br>All other situations \$500 |              |   |            | \$400.00                                |              |
| TOTAL OF 21, 22 and 23 =  |              |   |            | \$900.00                                |              |
| <input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium).<br>The fee is \$250 for each additional 50 sheets of paper or fraction thereof.   |              |   |            | \$0.00                                  |              |
| Total Sheets  | Extra Sheets | Number of each additional 50 or fraction Thereof (round up to a whole number) | RATE       |   |              |
| 57-100  | 0/50=        |   | X\$250     | \$0.00                                  |              |
| Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).  |              |   |            | \$0.00                                  |              |
| CLAIMS  | NUMBER FILED | NUMBER EXTRA  | RATE       |   |              |
| Total Claims  | 34-20 =      | 14  | x \$50.00  | \$700.00                                |              |
| Independent Claims  | 2-3 =        | 0   | x \$200.00 | \$0.00                                  |              |
| Multiple dependent claim(s) (if applicable)   |              |   | + \$360.00 | \$360.00                                |              |
| TOTAL OF ABOVE CALCULATIONS =   |              |   |            | \$1,960.00                              |              |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2.  |              |   |            | \$                                      |              |
| SUBTOTAL =  |              |   |            | \$1,960.00                              |              |
| Processing fee of \$130.00 for furnishing the English translation later than the 30 months from the earliest claimed priority date (37 CFR 1.492(f)).   |              |   |            | \$0.00                                  |              |
| TOTAL NATIONAL FEE =  |              |   |            | 1,960.00                                |              |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property  |              |   |            | \$0.00                                  |              |
| TOTAL FEES ENCLOSED =   |              |   |            | \$1,960.00                              |              |
|   |              |   |            | Amount to be refunded                   | \$0.00       |
|   |              |   |            | Amount to be charged                    | \$1,960.00   |
| a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed.  |              |   |            |   |              |
| b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. <u>500417</u> in the amount of \$ <u>1,960.00</u> to cover the above fees. A duplicate copy of this sheet is enclosed.  |              |   |            |   |              |
| c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>500417</u> . A duplicate copy of this sheet is enclosed.  |              |   |            |   |              |
| NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.   |              |   |            |   |              |
| SEND ALL CORRESPONDENCE TO:   |              |   |            | September 20, 2006                      |              |
| Customer Number 20277   |              |   |            | SIGNATURE                               |              |
| Telephone: 202.756.8000   |              |   |            | Michael E. Fogarty                      |              |
| Facsimile: 202.756.8087   |              |   |            | NAME                                    |              |
|   |              |   |            | 36,139                                  |              |
|   |              |   |            | REGISTRATION NUMBER                     |              |